

In the Claims:

1. (currently amended) A method of separately molding a plurality of semiconductor assemblies on separate multiple semiconductor substrates/leadframes comprising the steps of:

providing vertically stacked molding die layers stacked one above the other to form vertically stacked die mold sections between said die layers for completely molding separate multiple semiconductor assemblies on separate substrates/leadframes in mold forming pockets in said die layers, said die layers having at least one top layer aperture or die hall in the top most die layer to form an opening into a top die mold section and a plurality of intermediate layer apertures or die halls in intermediate die layers to form openings into lower vertically stacked die mold sections, said top die mold section having runner grooves in at least one of said top die layer or next lower die layer with a separate runner groove extending directly from each of said top layer aperture to a separate one of said mold forming pockets in the top die mold section and said lower die sections having runner grooves in at least one of said die layers with a separate runner groove extending directly from each of said intermediate layer apertures to a separate one of said mold framing pockets in the die mold section for passing molding compound through the top layer aperture along said runner grooves to the mold framing pockets in the top die section and down through the plurality of intermediate layer apertures between the die mold layers along each said runner grooves into the mold forming pockets in the die mold layers in the lower die sections with die halls between the stacked die layers and a die hall in a top die layer;

providing separate semiconductor substrates with a plurality of semiconductor assemblies between each of said vertically stacked layers in the location of the mold forming pockets; and

flowing molding compound through said top layer aperture and along said each of said runner grooves into the mold framing pockets and the substrate/ leadframe in the top die mold section and from the top die mold section through die halls between stacked die layers along the runner grooves into the mold framing pockets to the other substrate/leadframes in lower die mold sections between lower stacked die layers.

2. (canceled)

3. (currently amended) The method of Claim 1 wherein said flowing step includes a press rod for pressing the molding compound through said die hall in said top die layer.